



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Group Art: 3724
Examiner: Kim N. Tran
Applicants: Stuart Wright
Serial No.: 09/465,946
Filed: December 17, 1999
For: **A POWER SAW**

11/ Appeal
Chief
12/28/01
Wright
**APPEAL BRIEF
RECEIVED**

DEC 18 2001
TECHNOLOGY CENTER R3700

Honorable Commissioner of Patents and Trademarks
Washington, D.C. 20231

CERTIFICATE OF MAILING

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Commissioner of Patents and Trademarks, Washington, D.C. 20231 on Nov 15, 2001.

By [Signature]

Dear Sir:

This is an Appeal from the April 19, 2001 final rejection of Claims 13 and 15 of the above-identified application. Claims 9-12, 14 and 16 have been allowed. Claims 1-8 have been cancelled. Claims 13 and 15 are rejected under 35 U.S.C. 102(b) as being anticipated by Atkinson. The claims on appeal are Claims 13 and 15 and are reproduced in Appendix A.

REAL PARTY IN INTEREST

Black & Decker, Inc. is the real party and interest.

12/17/2001 CV0111 00000024 022548 09465946

02 FC:120 320.00 CH

RELATED APPEALS AND INTERFERENCES

To the best of Applicant's knowledge, no other appeals or interferences are pending which would be directly effected or have a bearing on the Board's decision in the present pending appeal.

STATUS OF THE CLAIMS

Claims 1-8 have been cancelled. Claims 9-12, 14, and 16 are allowed. Claims 13 and 15 stand finally rejected.

STATUS OF AMENDMENTS

Applicant filed an Amendment After Final on July 5, 2001; however, no amendments were made to the claims.

SUMMARY OF THE INVENTION

The invention relates to a power saw including a body (36) and a motor (24) housed within the body (36) (See. Figures 10 and 12). The motor (24) is arranged to power a reciprocating shaft (2) on which a blade (12) for sawing may be mounted (see Fig. 10). A pivotal sole plate (48) is attached to the body and arranged to be held relative thereto in a plurality of positions. (See. Figs. 12 and 13). In at least one position (see Fig. 13), the sole plate is in contact with the workpiece acting as a guide for use of the power saw as a jigsaw with the blade (12) passing through the sole plate (48). Here, the power saw is used as a jigsaw. In a second position, the sole plate (48) is out of contact with the workpiece with the saw in a used position (see Fig. 12). A copy of the patent application is attached hereto as Appendix B.

ISSUE

Applicant presents the following issue for review:

1. Whether or not Claims 13 and 15 are unpatentable under 35 U.S.C. 102(b) over Atkinson.

GROUPING OF THE CLAIMS

Claims 13 and 15 stand or fall together.

ARGUMENT

Background of the Invention

The present invention relates to power saws, and, more particularly, to a power saw which would be readily adapted to different sawing modes by a user by simply changing the blades.

While it is desirable to have a saw which can operate in a plurality of modes, there exists certain difficulties. For example, a large power saw (so called panel saw) has fundamentally different characteristics to those of a jigsaw.

Panel saws tend to be large, heavy, and bulky saws with high powered motors. This is because in use of the saw, a large workpiece and a high amount of shock are worked upon. Also, a high degree of accuracy in the sawing process tends not to be necessary.

By contrast, jigsaws tend to be relatively small, lightweight saws with smaller, often variable speed, motors. Because of the workpiece on which a jigsaw is used is usually small and/or thin, smaller saw blades are used. Furthermore, there is often a need for high degrees of accuracy when sawing with a jigsaw.

Additionally, the panel saw and jigsaw blades are usually held at different angles relative to a workpiece. A panel saw blade is often brought down into contact with the

workpiece generally parallel therewith while a jigsaw blade cuts into a workpiece from the side.

The above differences mean that jigsaws need to have a sole plate in order to guide the saw blade during cutting. Also, the sole plate enables the user of the jigsaw to maintain the attitude of the blade constant with respect to the workpiece. A panel saw, however, often needs no such sole plate.

Thus, it would be highly desirable to have a saw capable of operating in a plurality of modes, such as a panel saw and a jigsaw, to have a sole plate when needed but no sole plate when it is not needed. The present invention provides such a saw.

The Atkinson reference fails to anticipate Applicant's invention to those skilled in the art. It is respectfully submitted that the Examiner is misapplying the reference.

The Examiner has rejected Claims 13 and 15 under 35 U.S.C. 102(b) as being anticipated by Atkinson. A copy of the Examiner's Advisory Action and a copy of the Atkinson reference are attached to this appeal brief as Appendix C and D, respectively.

In the Examiner's Advisory Action, attached as Exhibit C, the Examiner indicates that while Atkinson, in Figs. 6 and 7, demonstrates that the power saw may be utilized in various positions and shows a sole plate in contact with the workpiece it does not mean that the power saw cannot be utilized in another manner such that the sole plate is not in contact with the workpiece. The Examiner alleges that it would be inherent to utilize Atkinson in a manner contrary to Atkinson's teaching.

The Court of Appeals for the Federal Circuit in In re Weis, 26 U.S.P.Q.2d 1885 (Fed. Cir. 1993 at 1888) stated:

the mere fact that a certain thing may result from a given set of circumstances is not sufficient (to establish inherency) ...

(which requires that) the disclosure is sufficient to show that the natural result flowing from the operation as taught would result in the performance of the questioned function ...

Here, the natural result flowing from Atkinson is that the shoe is always in contact with the workpiece whenever the saw is utilized. This is illustrated in column 2, lines 62 through column 3, line 2 where Atkinson discloses that the shoe may pivot to make a pocket cut, however, the shoe is always in contact with the working surface. Col. 3, lines 3-17. Atkinson further discloses that the saw may be utilized as a scroll saw where the shoe is rigid and positioned on the workpiece. Thus, the Examiner is misapplying the Atkinson reference since the natural flowing result as would be taught in the performance of the questioned function is not removing the sole plate from the workpiece as suggested by the Examiner. Thus, the Examiner's allegations are contrary to Atkinson's teaching. Accordingly, Atkinson does not support the Examiner's contention.

Further, the Court of Appeals from the Federal Circuit in In re Spada, 15 U.S.P.Q. 2d 1655 (Fed. Cir. 1990) at 1657 stated:

rejection for anticipation or lack of novelty requires, as the first step in the inquiry, that all the elements of the claimed invention be described in a single reference." (Cite omitted). Further, the reference must describe the Applicant's claimed invention sufficiently to have placed a person of ordinary skill in the field of the invention in position of it. (Cite omitted).

The Atkinson reference cited by the Examiner clearly fails to disclose or suggest a sole plate in a second position where the sole plate is out of contact with the workpiece with the saw in a use position. Atkinson illustrates a sole plate which is pivoted and is in contact with the workpiece as illustrated in Figure 6. Atkinson illustrates the sole plate in a rigid position in Figure 7. Here the sole plate is in contact with the workpiece. No

where does Atkinson disclose or suggest a sole plate which is out of contact with the workpiece as claimed by Applicant.

The second part of anticipation is that the reference describes the Applicant's invention sufficiently to have placed a person of ordinary skill in the field of the invention in possession of it. Clearly, since Atkinson illustrates that the sole plate is always in contact with the workpiece when the saw is being used, one cannot draw from this reference that it would be used when the sole plate is not in contact with the workpiece.

Clearly, as the Examiner has suggested, the blade is always between the sole plate and thus when the saw is utilized, the sole plate will be in contact with the workpiece.

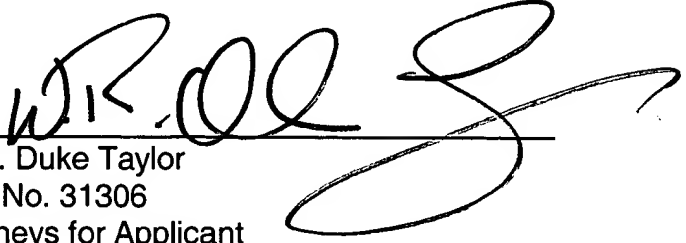
Accordingly, one skilled in the art would not be placed in possession of Applicant's invention by the teaching of the Atkinson device. Thus, the Atkinson reference is an improper §102 reference. Accordingly, Applicant believes the claims to patentably distinguishable over the art cited by the Examiner.

CONCLUSION

Applicant respectfully submits that the Atkinson reference fails to anticipate Applicant's invention. In fact, the Atkinson reference teaches a way from Applicant's invention since Atkinson requires the sole plate always be in contact with the workpiece when the saw is utilized. This is unlike Applicant's invention which provides the sole plate in contact with the workpiece in one position and movable to a second position where the sole plate is not in contact with the workpiece when the saw is used.

Accordingly, reversal of the final rejection of Claims 13 and 15 and allowance of the claims is respectfully requested.

Respectfully submitted,
HARNESS, DICKEY & PIERCE, P.L.C.

BY: 
W. R. Duke Taylor
Reg. No. 31306
Attorneys for Applicant

P.O. Box 828
Bloomfield Hills, MI 48303
(248) 641-1600

November 15, 2001

WRDT/sjs

Attorney Docket No. 0275S-500804

13. A power saw including: a body and a motor housed within the body; the motor arranged to power a reciprocable shaft on which a blade for sawing may be mounted; a pivotable sole plate attached to the body and arranged to be held relative thereto in a plurality of positions such that in at least one position the sole plate is in contact with a workpiece acting as a guide for use of the power saw as a jigsaw with the blade for sawing passing through the sole plate in use of the power saw as a jigsaw, and in a second position the sole plate is out of contact with the workpiece with the saw in a use position.

15. A power saw according to claim 13, wherein the pivotable sole plate is lockable in any one of the plurality of positions.

EK008796404US

UNITED STATES PATENT APPLICATION

OF

STUART WRIGHT

FOR

A POWER SAW

FILED

DECEMBER 17, 1999

DOCKET NO. CS1062#SP

A POWER SAW

The present invention relates to a power saw and has particular, although not exclusive, relevance to such a power saw which may be operated with a plurality of interchangeable saw blades.

Although the concept of using a power saw with a plurality of interchangeable
5 blades has been known for many years, there is a tendency for the blades which are interchanged to be of the same physical size. The only significant difference between the blades tends to be the nature of the saw teeth. For example teeth of differing pitches are used when sawing wood as opposed to metal.

It has, however, been found that it would be useful if a power saw could accept
10 a plurality of different saw blades of differing sizes as well as of differing natures. Such a provision could enable the power saw to operate in totally different sawing modes, depending upon which blades are used.

For example, if the power saw were able to accept a large woodsawing blade
(such as are used for cutting tree branches or wooden logs) and also a small jigsaw
15 blade, then a truly versatile saw would be available. The saw could then be readily adapted to different sawing modes by the user simply changing the blades.

Although the above aim is highly desirable, there exist certain difficulties. For example, a large power saw (so-called "panel saw") has fundamentally different characteristics to those of a jigsaw.

20 Panel saws tend to be large, heavy and bulky saws having high-powered motors. This is because in use of the saw, a large workpiece and a high amount of stock are worked upon. Also, a high degree of accuracy in the sawing process tends not to be necessary.

By contrast jigsaws tend to be relatively small, lightweight saws with smaller,
25 often variable-speed, motors. Because the workpiece on which a jigsaw is used is usually small and/or thin, then smaller saw blades are used. Furthermore there is often the need for a high degree of accuracy when sawing with a jigsaw.

Additionally, the panel saw and jigsaw blades are usually held at different angles relative to a workpiece. A panel saw blade is often brought down into contact

with a workpiece generally parallel therewith, whilst a jigsaw blade cuts into a workpiece from the side.

The above differences mean that a jigsaw will need to have a sole plate in order to guide the saw blade during cutting and also to enable the user of the jigsaw to maintain the attitude of the blade constant with respect to the workpiece. A panel saw, however, often needs no such sole plate.

It would thus be highly desirable for a saw capable of operating in a plurality of modes, such as a panel saw and a jigsaw, to have a sole plate when needed, but no sole plate when not needed.

Accordingly the present invention provides a body and a motor housed within the body; the motor arranged to power a reciprocable shaft on which a blade for sawing may be mounted; a pivotable sole plate attached to the body and arranged to be held relative thereto in a plurality of positions such that in at least one position the sole plate acts as a guide for use of the power saw as a jigsaw with the blade for sawing passing through the sole plate in use of the power saw as a jigsaw. By allowing the sole plate to be pivotable into and out of a plurality of positions, then the above desirable advantages may be met.

Preferably the body of the power saw defines two working surfaces either of which may, during use of the power saw, abut a workpiece, and wherein the pivotable sole plate may be pivoted to rest against either of these two surfaces. If one of the working surfaces is used when the saw is in a panel saw mode, then the sole plate may abut the other during use. Conversely, if the other working surface is used when the saw is in a jigsaw mode, the sole plate may abut the said one working surface. The pivotable sole plate may be lockable in any one of the plurality of positions.

In a preferred embodiment the body is shaped to define a recess within which the pivotable sole plate may sit when in at least one of the plurality of positions. This permits the sole plate to be kept out of the way of the user when desired during certain sawing operations. Also, the sole plate may include visual indicia to act as a guide to align the power saw with a workpiece.

The present invention will now be described, by way of example only, and with reference to the accompanying drawings, of which:-

Figure 1 shows a reciprocable shaft on which a saw blade may be mounted in accordance with an embodiment of the present invention;

Figure 2 shows the shaft of Figure 1, but with a saw blade mounted thereon in an operating position from one side;

5 Figure 3 shows the view of Figure 2, but from the other side of the saw blade;

Figure 4 shows a side view of the reciprocable shaft of Figure 1, but with the retaining member thereof being in an unlocked position;

Figure 5 shows the shaft of Figure 1 with the saw blade mounted thereon in a locked position;

10 Figure 6 shows a sectional view along the line A-A of Figure 5;

Figure 7 shows a sectional view along the line B-B of Figure 5;

Figure 8 shows a side view of a saw blade and the reciprocable shaft of Figures 2 and 3 in an unlocked position;

15 Figure 9 shows the view of Figure 8, but with the saw blade now retained in its stored and locked position;

Figure 10 shows a schematic illustration of the motor and internal mechanisms of a power tool in accordance with an embodiment of the present invention;

Figure 11 shows a schematic side representation of Figure 10;

20 Figure 12 shows a side view of a powered saw in accordance with an embodiment of the present invention; and

Figure 13 shows a side view of an alternative use of a powered saw to that of Figure 12.

Referring firstly to Figure 1, there is shown a shaft (2) formed from pressed metal, such as steel, and having in the centre thereof a yoke (4). One end of the shaft (2) is formed integrally with a depending retaining member, here a blade mount (6).
25 The blade mount (6) comprises a restraining means, here two arms (8) which depend from the shaft (2). The blade mount further includes a pin (10) which will be described in more detail below.

Referring now also to Figures 2 and 3, it can be seen that the shaft (2) is
30 arranged to drive a saw blade (12) presented thereto and which is mounted on the blade mount (6). It can be seen that the saw blade (12) has a shank (14) which has

formed therein a hole (16) (see more clearly Figures 5, 8 and 9) for mounting the blade (12) on a lug (18) of the pin (10).

Referring now to Figure 4, it can be seen that the pin (10) comprises a head (20) formed on one side of the blade mount (6) and a lug (18) co-operating with the head (20) formed on the other side of the blade mount (6). The shape of the lug (18) is the same as that of the hole (16) formed in the blade (12). This allows for the blade (12) to be mounted snugly on the lug (18).

The pin (10) is rotatable about its axis shown as X-X in Figure 4 and it can be seen from this figure that the blade mount (6) has a recess (21) formed therein such that the lug (18) may sit within the recess (21) when it is in one of two positions. Because the pin (10) is rotatable about the axis X-X, then whenever the lug (18) is aligned with the recess (21) (in either of two positions 180° apart) then it will fit within the recess (21). In any other position, the lug (18) cannot sit within the recess (21).

In order for the lug (18) to be selectively aligned or not with the recess (21), the head (20) of the pin (10) is spring biased. In this manner, therefore, whenever the lug (18) is aligned with the recess (21) it "pops" into the recess and is held therein until the user exerts sufficient force against the head (20) against the action of the spring (described later below) to force the lug (18) out of the recess (21) and therefore allow the pin (10) to be rotated about the axis X-X.

Referring now additionally to Figure 5, it can be seen that the saw blade (12) is held in its locked position (because the lug (18) is within the recess (21)) against the shaft (2). Because the shaft (2) is arranged to reciprocate, that is drive the blade (12) backwards and forwards along a linear path, then it will be understood that each of the arms (8) is arranged to flank the shank (14) of the blade (12) to prevent the blade (12) from becoming detached from the blade mount (6). This is because the arms (8) prevent any movement of the blade (12) in a direction perpendicular to the direction of reciprocation of the shaft (2).

In order to understand the operation of the pin (10) and its interaction with the blade (12), reference will now be made in particular to Figures 5, 6 and 7.

The pin (10) is spring biased, and in the case of Figure 6, it can be seen that the head (20) of the pin (10) has not been depressed and therefore under the action of the

spring (22), the head (20) is forced to the left of Figure 6 therefore allowing the lug (18) to sit within the recess (21). This does, of course, presuppose that the lug (18) is aligned with the recess (21) as has been described here above. Assuming this to be the case, then the blade will be locked in this position. Rotation of the pin and therefore the lug (18) are not possible because the lug (18) is located within the housing (20).

Referring now to Figure 7, it will be described how the lug (18) is released from the recess (21) in order to allow rotation of the saw blade (12).

In Figure 7 the user has pushed the head (20) to the right of the figure and therefore caused compression of the spring (22). The movement of the pin (10) to the right of the figure releases the lug (18) from the recess (21) and therefore allows rotation of the pin (10) about its axis X-X. Because the lug (18) is now no longer located within the recess (21) then rotation of the pin (10) means that the blade (12) may be rotated as well. Referring also to Figure 8, this shows how the saw blade (12) has been rotated through 90° as compared with the locked position of Figure 5.

Whilst referring to Figure 8, it can be seen that, because the blade (12) is now perpendicular to the shaft (2) rather than parallel therewith as was the case in Figure 5, then the shank (14) of the saw blade (12) is no longer constrained by the arms (8) of the blade mount (6). This means that the entire blade (12) may be removed from the lug (18) and could, for example, be replaced by an alternative saw blade.

Referring now to Figure 9, it can be seen that further rotation of the pin (10) and the blade (12) is possible (because there is no alignment between the lug (18) and the recess (20)). The saw blade (12) as shown in Figure 9 has now been rotated through 180° with respect to that of Figure 5. It will be appreciated that the lug (18) is now re-aligned with the recess (21) and therefore if the user ceases to apply any force to the head (20) of the pin (10), then the lug (18) may fall back into the recess (21) and therefore lock the saw blade (12) in the position shown. This may be useful when the saw is to be carried around but the blade needs to be kept safely within the body of the saw, for example, to avoid injuring a user or damage to the saw blade.

Although only shown in dotted outline in Figure 9, it will be understood that a further pair of arms (8) may be employed in the blade mount (6) to retain the saw blade (12) in the position shown.

Referring now to Figures 10 and 11 particularly, the internal mechanism of the power tool embodying the present invention will be described. In these examples, the power tool is a power saw.

5 An electric motor (24) is operable in conventional manner to drive a motor spindle (26) coupled to a drive wheel (28). The teeth of the drive wheel (28) mesh with the teeth of a gear wheel (30) having formed thereon an eccentric (32). Although not shown in the drawings, the eccentric (32) must be counter-balanced and those skilled in the art will appreciate this fact.

10 The eccentric (32) fits into the yoke (4). In this way, when the motor (24) is activated, it drives the drive wheel (28) which in turn causes rotation of the gear wheel (30). The circular movement of the eccentric (32) sitting in the yoke (4) therefore causes a linear reciprocal motion of the shaft (2) in a right-left-right motion as the drawings are viewed. In order to ensure that the only motion of the shaft (2) at the operative end (that is where the blade (12) and the blade mount (6) are situated)
15 occurs, a retaining bar (34) having linear bearings surrounds the shaft (2). This restrains movement of the shaft only in the left-right-left linear direction.

Whilst in the above examples of Figures 10 and 11 only one drive wheel (28) is shown, those skilled in the art will appreciate that any desired gearing arrangement may be used. The choice of gearing arrangement will depend primarily on the step
20 up/step down requirement between the rotational output speed of the motor (24) and the frequency of linear reciprocation needed for the shaft (2).

Referring now particularly to Figures 12 and 13, two further embodiments of the present invention are now described. It can be seen by comparing these two figures, that the power tools shown therein share the same body (36). However, the
25 tools shown in Figures 12 and 13 each are used for a different purpose and operate in different modes, as will be described here below. It should be understood that, for the purposes of Figures 12 and 13, the internal mechanism as shown in Figures 10 and 11 is incorporated therein. However, because Figures 12 and 13 show the tool from the outside, then the internal mechanisms cannot be seen.

30 In Figure 12, the tool is used as a so-called panel saw. Panel saws are generally used for sawing large pieces of wood and the like in the form of blocks such as logs. In the present invention, it has been found desirable to be able to offer the user the

facility of using the panel saw not only in its powered mode but also manually. That is, the user should be able to grip the handle (38) of the panel saw and use it as a conventional manually operated saw whether the blade is being driven by the motor (24) or not. To achieve this the saw needs to be lightweight but also it has been found
5 that, when the saw is being driven by the motor (24), conventional reciprocating action will prevent manually using the tool with ease, because of the combination of the frequency of reciprocation of the saw blade (12) and the length of each reciprocal stroke.

Conventionally, it has been found that the frequency of reciprocation of the
10 blade (12) has been around 3,000 strokes per minute. Additionally, the length of each reciprocal stroke has been in the region of 20mm. The combination of this particular frequency and stroke length results in large vibrational forces being felt by the user. Additionally, this creates large inertial forces which also need to be overcome in order to be able to use the saw manually. With a conventional panel saw, therefore, if the
15 user wishes to use it manually rather than in its conventional powered mode, a degree of discomfort would be felt because the saw would be vibrating at a frequency which does not lend itself to holding the saw comfortably. Additionally, the amplitude of each reciprocal stroke of the blade (12) is so large that high inertial forces are felt by the user meaning that to be able to pull and push the saw in a manual mode is not easily
20 achievable.

It has been found that by reducing the length of each reciprocal stroke to preferably around 10mm and concomitantly increasing the reciprocal stroke frequency to preferably around 6,500 strokes per minute, that this combination of lower stroke length and higher frequency results in less adverse vibrational and
25 inertial forces being felt by the user. This then enables the panel saw of Figure 12 to be used as a manual saw simply by holding the handle (38). Additionally, if the user requires a further grip on the body (36), a recess, formed as insert (40) is available for gripping by the other hand of the user (that is the hand which does not grip the handle (38)).

30 Although in the example described with reference to Figure 12 the preferred frequency of oscillation has been given as 6,500 strokes per minute, the present invention has been found to operate effectively with a frequency of vibration between

3,000 and 10,000 strokes per minute. Similarly, although the preferred amplitude of each reciprocal stroke is given as 10mm, it has been found that the present invention works effectively with a range of 5 to 15mm.

Referring now also to Figure 13, it can be seen that the same body (36) is
5 used with a different saw blade (12'). Indeed, the saw blade (12') is that found on conventional "jigsaws". Jigsaws are tools which are used with relatively small saw blades and are used for cutting accurate shapes in a workpiece. Conventionally, jigsaws are held relative to the workpiece in a different attitude to panel saws. This can be seen by reference to the difference in attitude between Figure 12 and 13. In
10 Figure 13, the body (36) can be seen resting on a block (42) which represents a workpiece. In use of the jigsaw, the body (36) would be held on the block (42) in the attitude shown in Figure 13.

It can be seen from Figure 13 that the handle (38) is now positioned relative to the workpiece (42) such that the body (36) may easily be used as a jigsaw. In use of
15 the jigsaw, a user exerts a force via the handle (38) in the direction of the large arrow marked "A". This is so that the blade (12') is driven also in the direction of the arrow "A" to cut through the workpiece.

It can be seen by comparing Figures 12 and 13, that the handle (38), although itself the same in both figures, it able to be used for exerting forces in a different
20 direction depending on which mode of use (either the panel saw of Figure 12 or the jigsaw of Figure 13) the tools are put to.

The handle (38) is positioned adjacent a trigger (44) which trigger (44) is operable by user when the handle (38) is gripped.

It can be seen from both Figures 12 and 13, therefore, that the position of the
25 handle (38) relative to the body (36) is such that the user may operate the saw in a plurality of positions relative to a workpiece. Thus, regardless of whether the tool is being used as a panel saw in Figure 12 or a jigsaw in Figure 13, the same handle is used for operating the saw. It will be appreciated by those skilled in the art, that this holds true whether the panel saw of Figure 12 is being used as a powered saw by
30 powering the motor (24) via an electricity supply cable (46), or whether it is being used manually.

In the examples shown, the trigger (44) is formed integrally with the handle (38). This need not necessarily be the case, and the trigger may be formed separately or indeed on another part of the body (36).

From Figures 12 and 13, therefore, it can be seen that the handle (38) is
5 accessible from one of two sides, depending on whether the tool is to be used as a panel saw or a jigsaw. It is envisaged that the present invention is of scope to allow more than two sides of the handle (38) to be used depending on the purpose to which the tool is being put.

It can be seen from Figures 12 and 13, that the body (36) also includes a
10 pivotable sole plate (48). The sole plate (48) is pivotable about pivot point (50). The pivot point (50) includes a means (not shown) for allowing the sole plate (48) to be held at any one of a desired position around the range of possible pivotable positions about the point (50). In the example of Figure 12, the sole plate (48) is tucked underneath the body (36). In the example of Figure 13, the sole plate (48) is pivoted
15 through 270° so as to act as the guide sole plate for a conventional jigsaw. In this mode, the blade (12') passes through the sole plate (48) when used in its jigsaw mode.

Those skilled in the art will appreciate that, conventionally, jigsaws use a sole plate (48) to act as a guide when cutting a workpiece. In the example of Figure 13, although it cannot be seen from the drawing, the sole plate (48) includes visual indicia
20 to allow the user to see exactly where the blade (12') will cut the workpiece when viewed from above the body (36).

It can be seen by comparing Figures 12 and 13, therefore, that the body (36) defines two working surfaces (52 and 54) dependent upon which mode the tool is being used. In the examples above, working surface (52) is used for the jigsaw mode
25 of Figure 13 and working surface (54) is used for the panel saw mode of Figure 12.

It will be understood by those skilled in the art that the sole plate (48) may be positioned at any suitable angle relevant to the body (36) dependent upon the use to which the tool is being put.

By referring now particularly to Figure 13 it can be seen that, when the tool is
30 used as a jigsaw, a user may also grip the dimpled surface (56) in order to assist with guiding the tool during use. Alternatively, this surface (56) can be used to form cooling vents within the body of the saw.

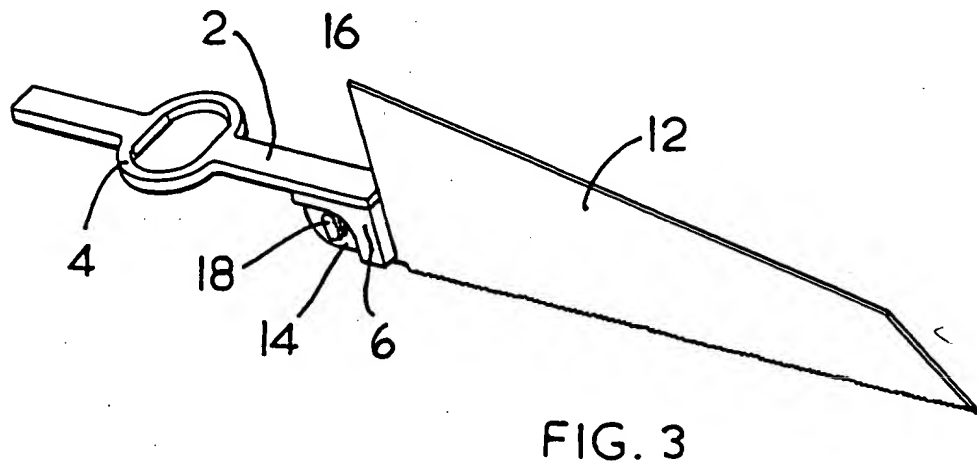
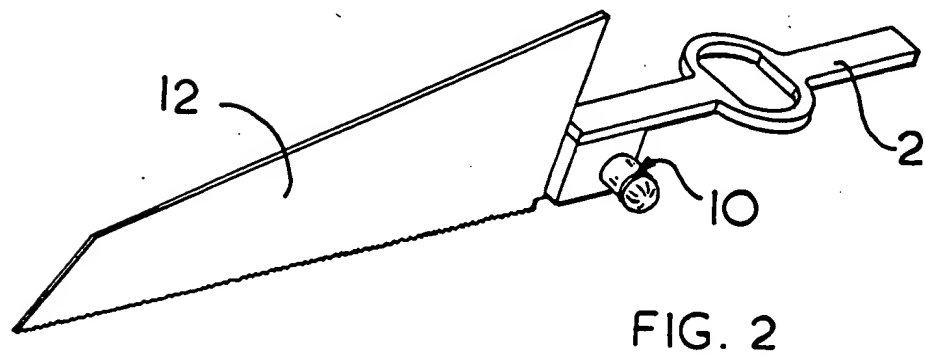
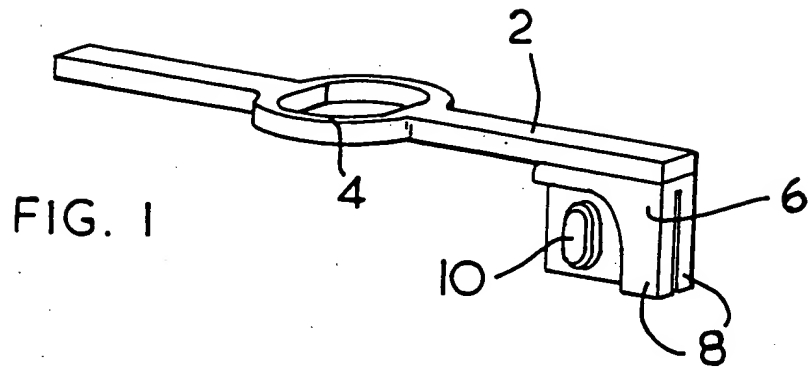
CLAIMS

1. A power saw including: a body and a motor housed within the body; the motor arranged to power a reciprocable shaft on which a blade for sawing may be mounted; a pivotable sole plate attached to the body and arranged to be held relative thereto in a plurality of positions such that in at least one position the sole plate acts as a guide for
5 use of the power saw as a jigsaw with the blade for sawing passing through the sole plate in use of the power saw as a jigsaw.
2. A power saw according to claim 1, wherein the body of the power saw defines two working surfaces either of which may, during use of the power saw, abut a
10 workpiece, and wherein the pivotable sole plate may be pivoted to rest against either of these two surfaces.
3. A power saw according to claim 1, wherein the pivotable sole plate is lockable in any one of the plurality of positions.
15
4. A power saw according to claim 2, wherein the pivotable sole plate is lockable in any one of the plurality of positions.
5. A power saw according to claim 1, wherein the body is shaped to define a
20 recess within which the pivotable sole plate may sit when in at least one of the plurality of positions.
6. A power saw according to claim 2, wherein the body is shaped to define a recess within which the pivotable sole plate may sit when in at least one of the
25 plurality of positions.
7. A power saw according to claim 3, wherein the body is shaped to define a recess within which the pivotable sole plate may sit when in at least one of the
30 plurality of positions.

8. A power saw according to claim 4, wherein the body is shaped to define a recess within which the pivotable sole plate may sit when in at least one of the plurality of positions.

ABSTRACT**A POWER SAW**

A power saw includes a body (36) housing a motor (24). The motor drives a reciprocal shaft (2) on which a blade (12) is mounted. The body is coupled to a pivotable sole plate (48,50) which is held relative to the body (36) in a plurality of positions such that in at least one position the sole plate may act as a guide for use of
5 the tool as a jigsaw.



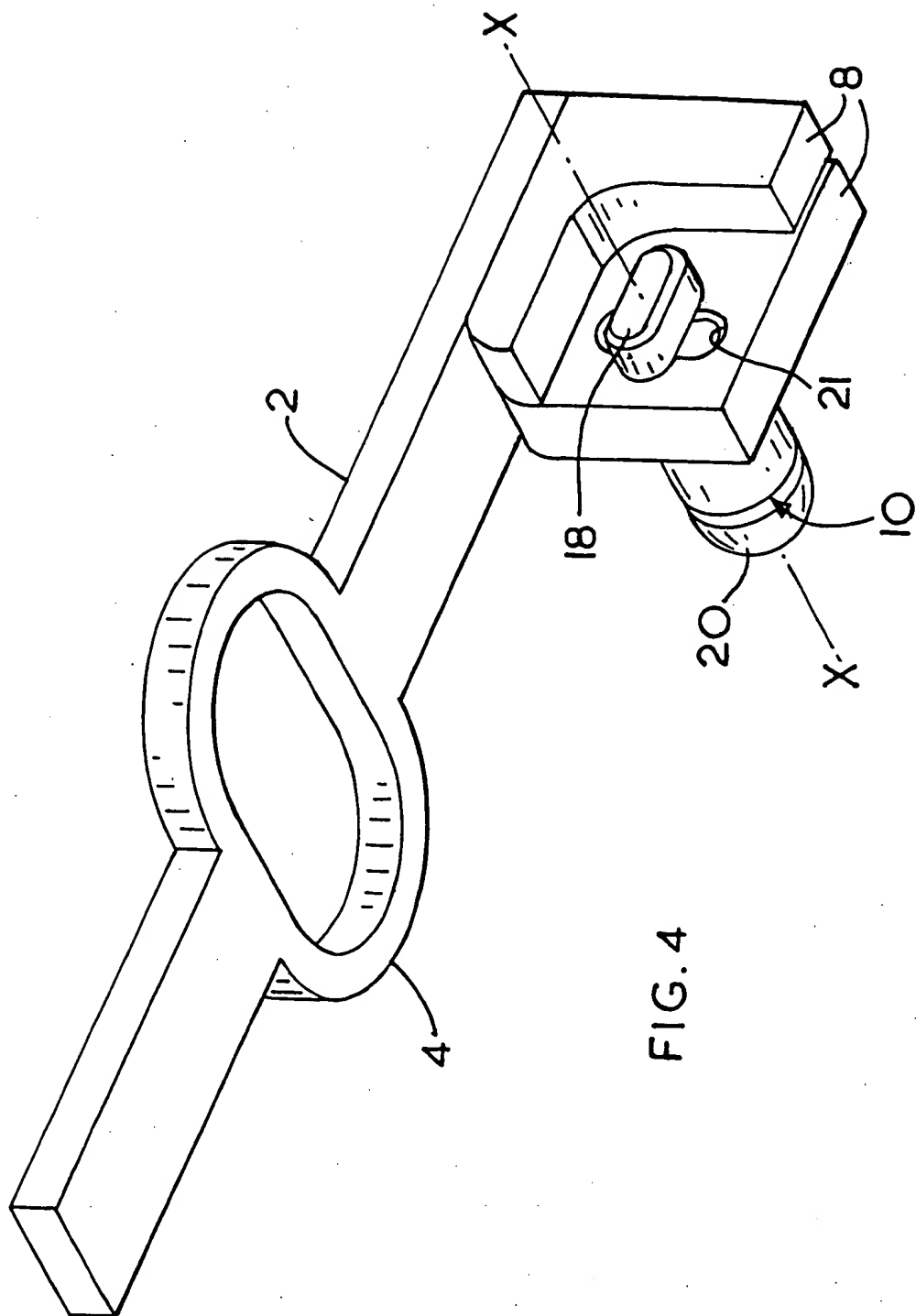


FIG. 4

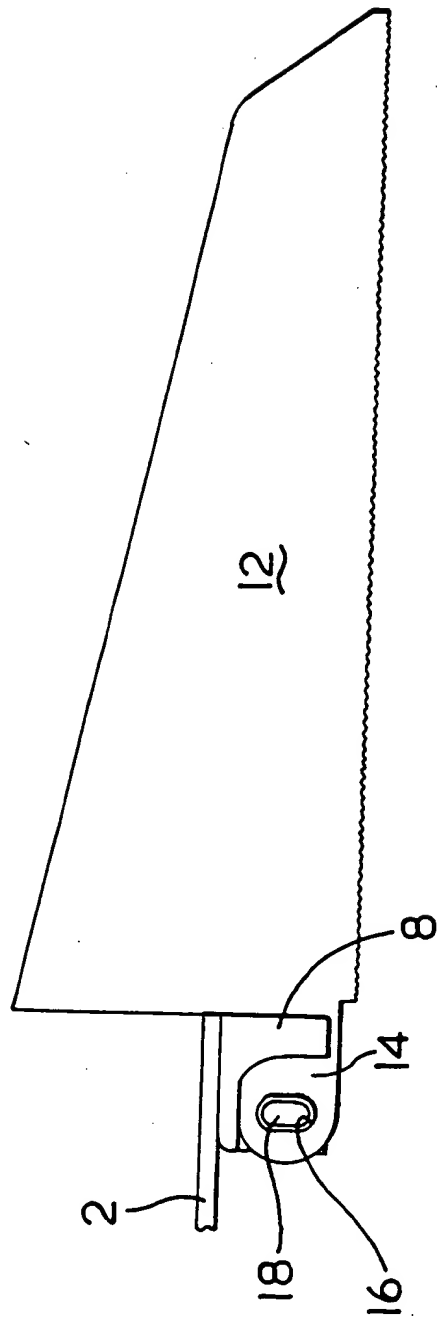


FIG. 5

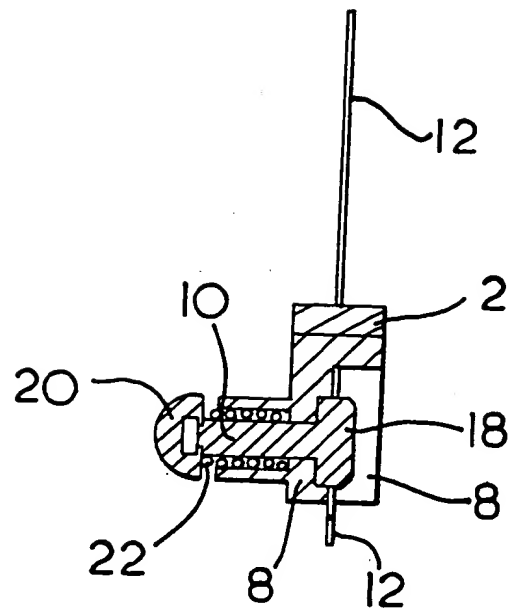


FIG. 6

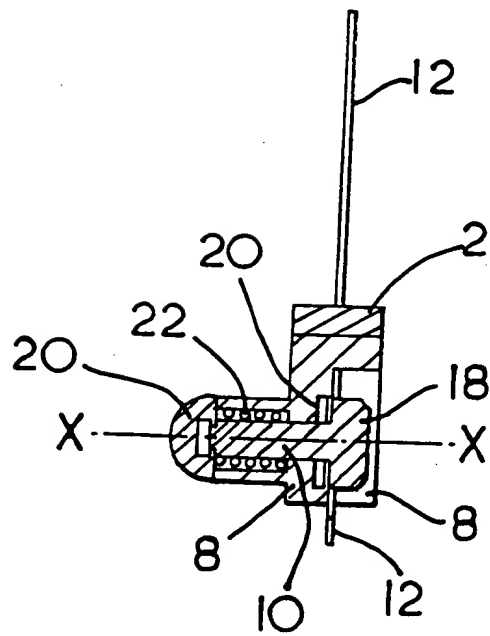


FIG. 7

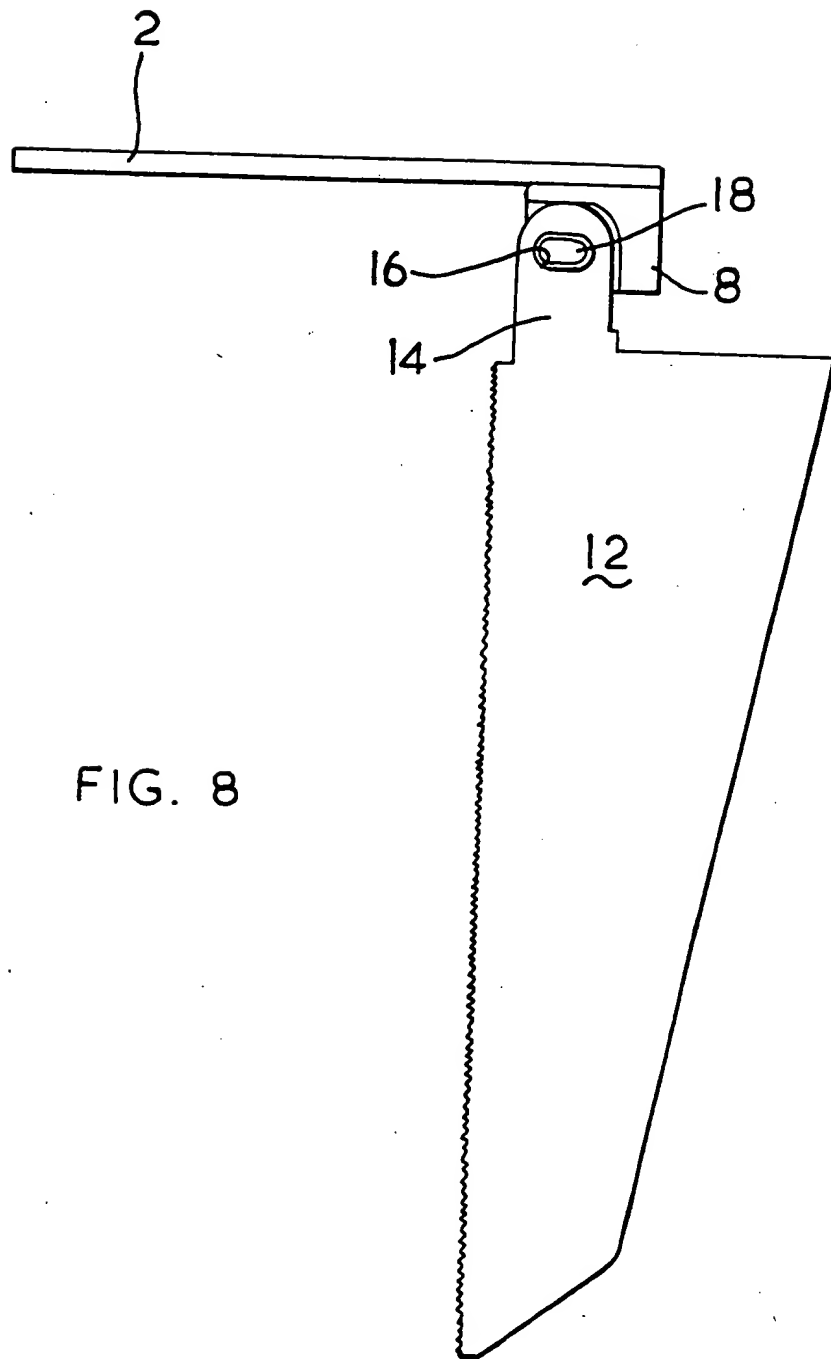


FIG. 8

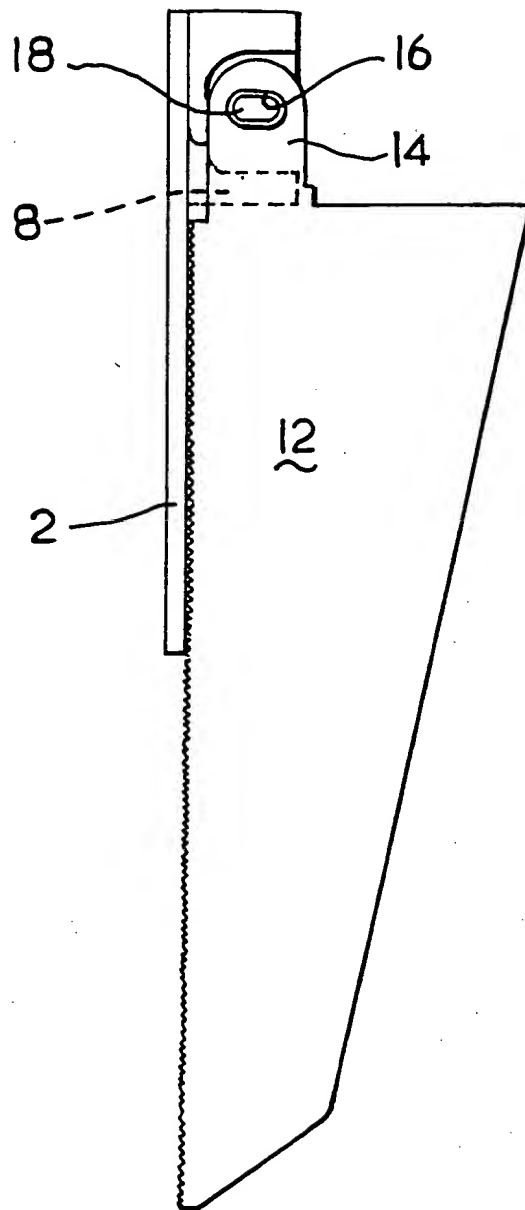
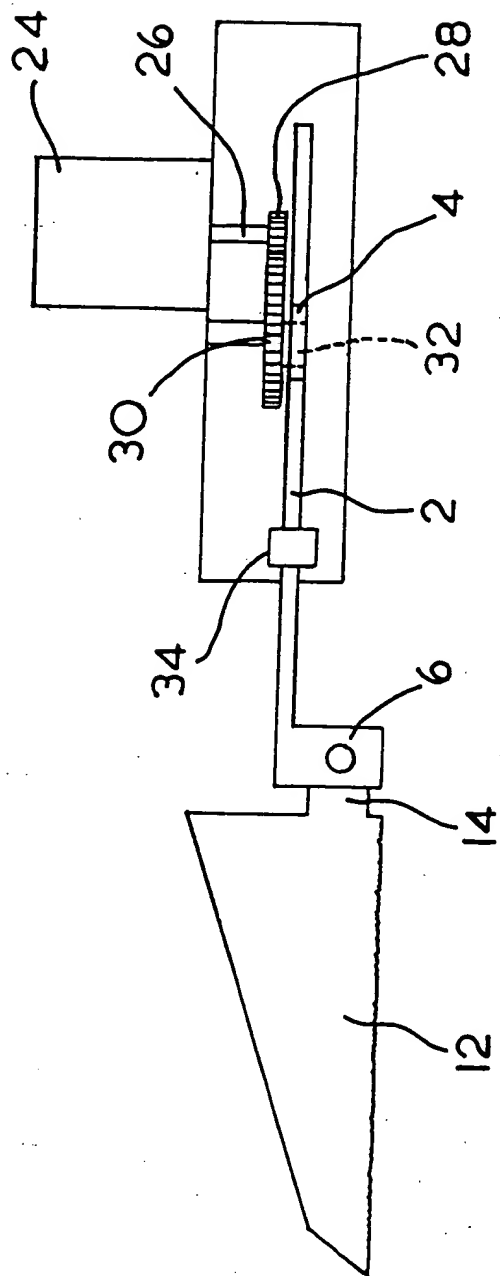


FIG. 9



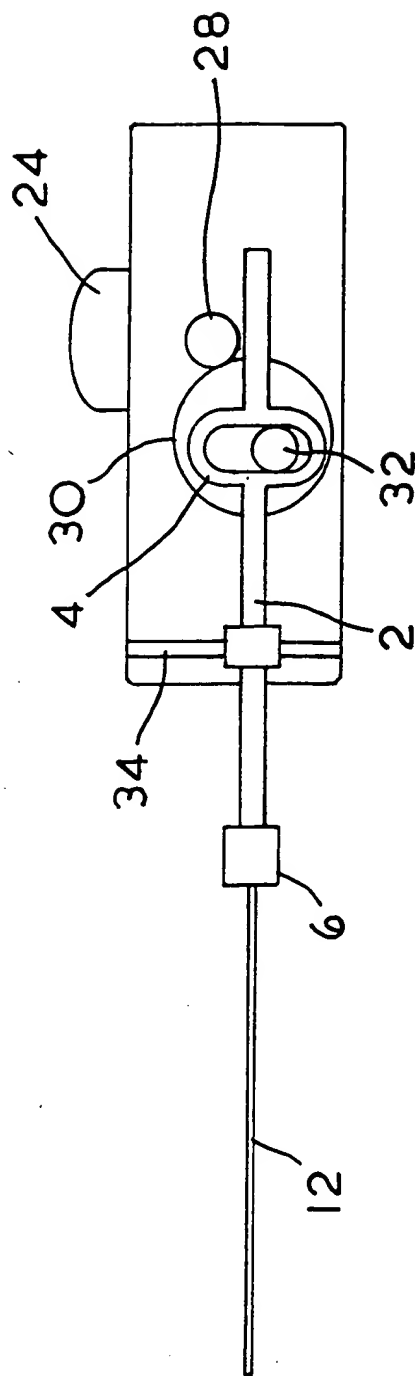


FIG. 11

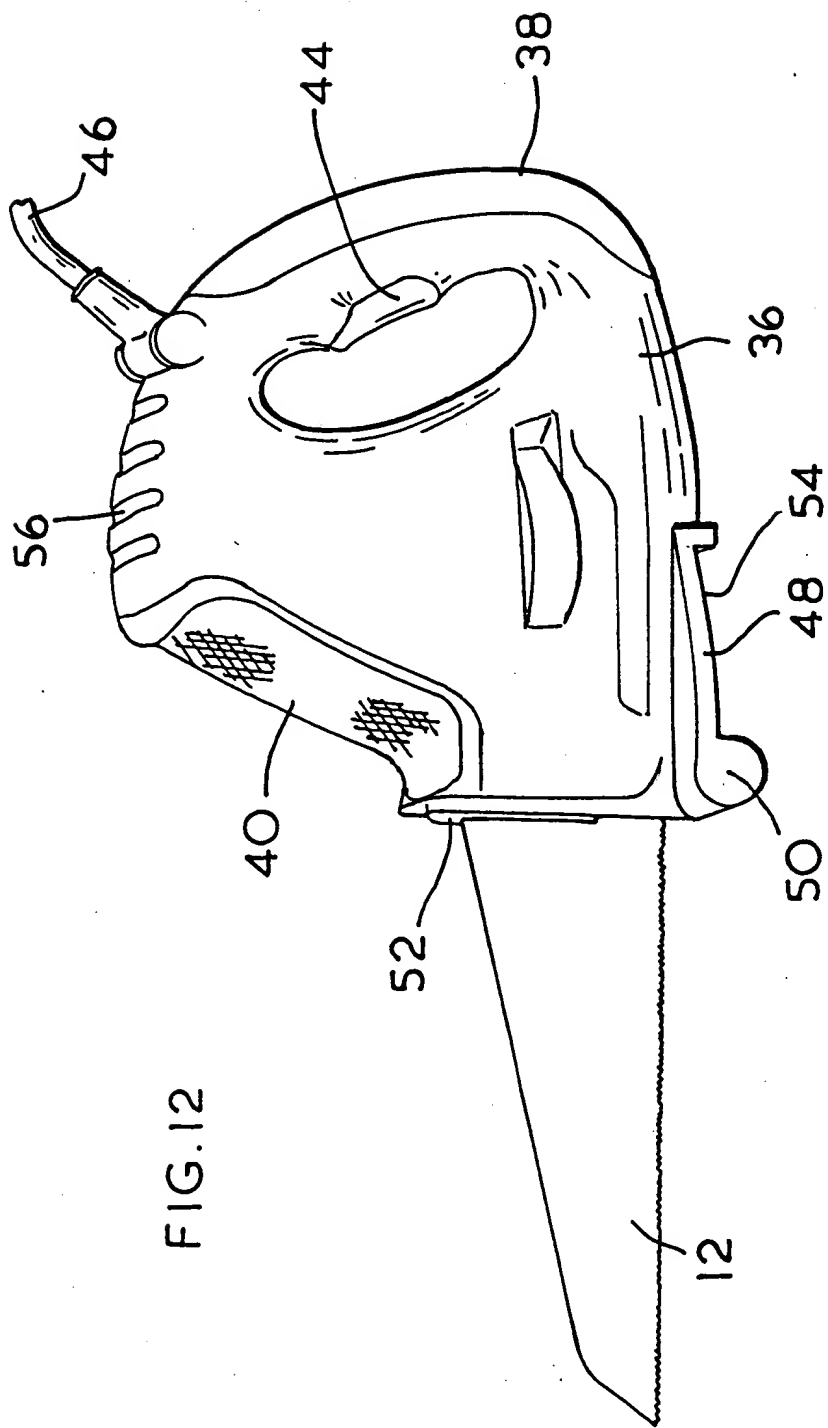


FIG. 12

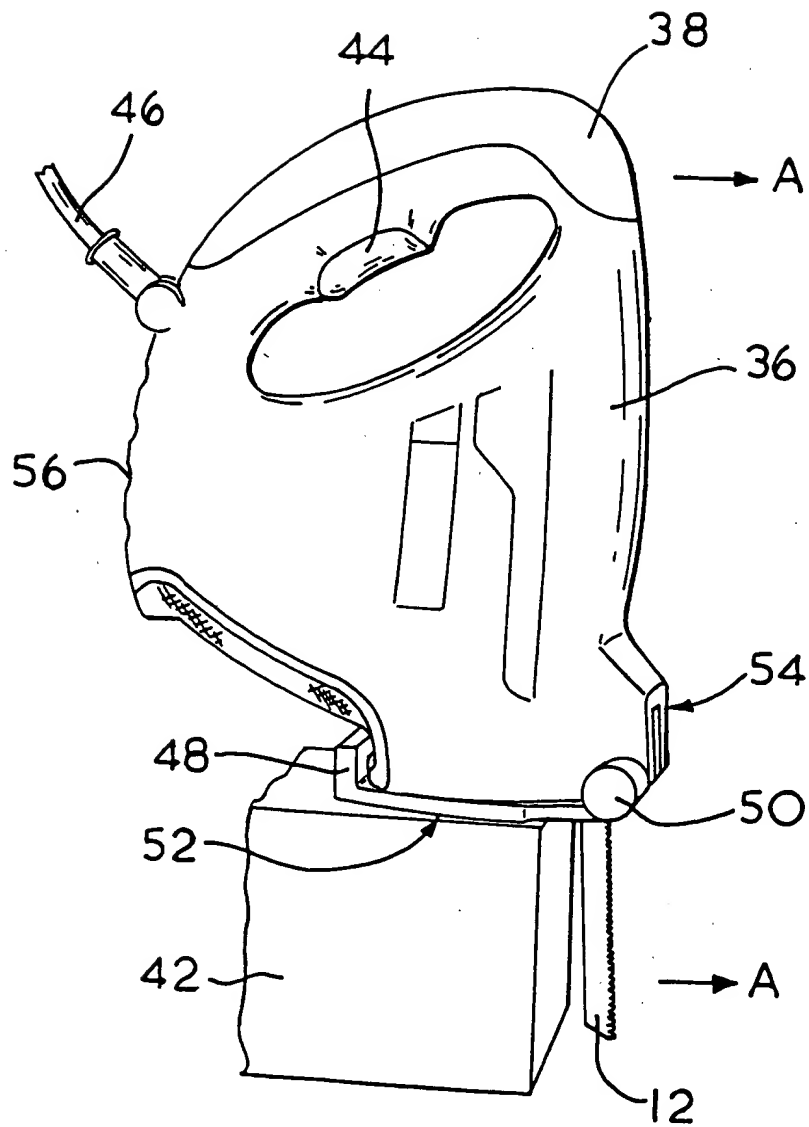
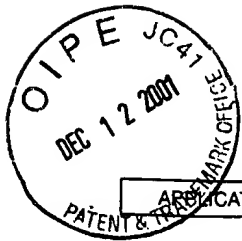


FIG. 13



UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
-----------------	-------------	----------------------	---------------------

09/165,916

12/11/01

WILLIS

5

051042800

EXAMINER

ART UNIT	PAPER NUMBER
----------	--------------

DATE MAILED:

07/27/01

RECEIVED

DEC 18 2001

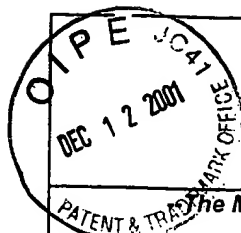
Please find below and/or attached an Office communication concerning this application or proceeding.

TECHNOLOGY CENTER 15700

Commissioner of Patents and Trademarks

ATTORNEY BSS
REQUIRED ACTION Final
DEADLINE 10-9-01
APPROVED _____

RECEIVED
PATENT DEPARTMENT
2001 JUL 31 AM 8:49



Advisory Action

Application No.	Applicant(s)	
09/465,946	WRIGHT, STUART	
Examiner	Art Unit	
Kim Tran	3724	

The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

THE REPLY FILED 10 July 2001 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE. Therefore, further action by the applicant is required to avoid abandonment of this application. A proper reply to a final rejection under 37 CFR 1.113 may only be either: (1) a timely filed amendment which places the application in condition for allowance; (2) a timely filed Notice of Appeal (with appeal fee); or (3) a timely filed Request for Continued Examination (RCE) in compliance with 37 CFR 1.114.

PERIOD FOR REPLY [check only a) or b)]

- a) ☒ The period for reply expires 3 months from the mailing date of the final rejection.
- b) ☐ In view of the early submission of the proposed reply (within two months as set forth in MPEP § 706.07 (f)), the period for reply expires on the mailing date of this Advisory Action, OR continues to run from the mailing date of the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection.

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

1. ☐ A Notice of Appeal was filed on _____. Appellant's Brief must be filed within the period set forth in 37 CFR 1.192(a), or any extension thereof (37CFR 1.191(d)), to avoid dismissal of the appeal.
2. ☐ The proposed amendment(s) will be entered upon the timely submission of a Notice of Appeal and Appeal Brief with requisite fees.
3. ☐ The proposed amendment(s) will not be entered because:
- (a) ☐ they raise new issues that would require further consideration and/or search (see NOTE below);
 - (b) ☐ they raise the issue of new matter. (see Note below);
 - (c) ☐ they are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or
 - (d) ☐ they present additional claims without canceling a corresponding number of finally rejected claims.

NOTE: _____

4. ☐ Applicant's reply has overcome the following rejection(s): _____.
5. ☐ Newly proposed or amended claim(s) _____ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).
6. ☒ The a) ☐ affidavit, b) ☐ exhibit, or c) ☒ request for reconsideration has been considered but does NOT place the application in condition for allowance because: Please see attachment.
7. ☐ The affidavit or exhibit will NOT be considered because it is not directed SOLELY to issues which were newly raised by the Examiner in the final rejection.
8. ☒ For purposes of Appeal, the status of the claim(s) is as follows (see attached written explanation, if any):
- Claim(s) allowed: 9-12 and 16.
- Claim(s) objected to: _____.
- Claim(s) rejected: 13 and 15.
- Claim(s) withdrawn from consideration: _____.
9. ☐ The proposed drawing correction filed on _____ a) ☐ has b) ☐ has not been approved by the Examiner.
10. ☐ Note the attached Information Disclosure Statement(s) (PTO-1449) Paper No(s). _____.
11. ☐ Other: _____

Art Unit: 3724

Advisory Action

1. Applicant's request for reconsideration has been fully considered, however is not deemed persuasive. It is the Examiner's position that the Applicant's claims do not ^{read} over come the prior art of Atkinson. Applicant contends that the sole plate of Atkinson's device is nowhere out of contact with the workpiece under operation. The Examiner disagrees. Figures 6 and 7 demonstrates that the power saw may be utilized in various positions and shows the sole plate in contact with the work piece. However, that does not mean the power saw may not be utilized in another manner such that the sole plate is not contact with the workpiece. For instance, an operator may use the power saw for cutting a workpiece such as wallboard or other free standing wall structure that does not necessarily require the sole plate to be in contact with the workpiece.

For the reasons above, the rejection is deemed proper.

2. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kim Tran whose telephone number is 703-305-2597.

The examiner can normally be reached on Monday through Friday from 8-5:30 pm.

3. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rinaldi Rada can be reached on 703-308-2187. The fax phone numbers for the organization where this application or proceeding is assigned are 703-305-2597 for regular communications and 703-305-9835 for After Final communications.

Art Unit: 3724

4. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-1148.



knt
July 26, 2001



Rinaldi I. Rada
Supervisory Patent Examiner
Group 3700